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ABSTRACT

Focusing on eliminating the disparity of literacy between low income, ethnically or culturally diverse populations and their more advantaged counterparts, this paper describes policies and procedures on how to ensure that all children in Washington State schools attain the highest levels of literacy possible. After some background information, the first section examines theoretical and research perspectives of reading and includes discussion of background and vocabulary knowledge, comprehension, fluency, reading and motivation, considering reading materials, and reading as a developmental process. The second section considers practices that support reading development and includes research on practices and balanced instruction for beginning readers. The third section discusses reading for fourth grade and beyond and describes issues concerning teaching comprehension, metacognition, teaching strategies, vocabulary learning, and the reading/writing connection. The last section deals with children at risk and discusses beginning reading, phonemic awareness, studies that focus on comprehension, and sociocultural issues. (Contains approximately 300 references; an appendix contains 6 tables of data.) (SC)

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Research Into Practice:

An Overview of Reading Research for Washington State

June 1998

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Research Into Practice:

An Overview of Reading Research for Washington State

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The Importance of Reading

As we approach the new millennium, higher levels of literacy than ever before are necessary for our complex and technological society. Students must acquire the knowledge, skills, and strategies that will allow them to read, write, and think critically. In *Becoming a Nation of Readers*, Anderson, Hiebert, Scott, and Wilkinson (1985) describe the importance of reading:

> Reading is a basic life skill. It is a cornerstone for a child's success in schools and, indeed; throughout life. Without the ability to read well, opportunities for personal fulfillment and job success will be lost (p. 1).

Various national and state assessments indicate that only a small percentage of our young people are reaching high levels of literacy (Applebee, Langer, and Mullis, 1987, 1988, 1989; Mullis, Campbell, and Farstrup, 1992; Washington Assessment of Student Learning, 1997). Further, as a group, students who are poor and/or from ethnically or culturally diverse populations score well below their more advantaged counterparts. It is only recently that this performance differential has been widely acknowledged in Washington State. Educators, parents, researchers, and policymakers are focused on eliminating this disparity. Thirty years of research tells us that there are no simple ways to accomplish this; however, there is much that we have learned and much that can be done.

Background: Reading and Policy in Washington

Recent discussions about how to ensure that all our children attain the highest levels of literacy have been marked by controversy. Educators, parents, legislators, the media, and the public at large offer suggestions that are at times congruous and at other times not.

In Washington State, the Commission on Student Learning and the Superintendent of Public Instruction have been collaborating with teachers, administrators, and other groups to design policies and procedures for meeting this goal, including:

- The essential academic learning requirements.
- Benchmarks for Grades 4, 7, and 10.
- The Washington Assessment of Student Learning (WASL).
- Frameworks that describe grade-appropriate skills and strategies.
- Tool kits for gathering classroom-based evidence of student progress.

At the same time, laws have been passed that directly impact teaching and learning. These include:

- A requirement that all second graders be tested on accuracy, rate, and fluency in reading (ESHB 2042).
- Legislation that funds professional development in beginning reading instruction and volunteer programs for struggling readers (E2SSB 6509).
- A mandate for raising student achievement in every school over a three-year period (SSHB 2849).

It falls upon school districts, administrators, and teachers to implement these policies and legislation and to do so with research-based practices. This challenge is intensified by a lack of clarity and a number of controversies about reading. What counts as research? How does reading develop? What should be the nature of beginning reading instruction? How can schools prevent or reduce reading failure?

The Importance of Teachers

Current discussions about reading tend to focus on which methods, materials, or programs are most effective in beginning reading instruction. The role of the teacher is often overlooked. In *Becoming a Nation of Readers* (1985), we are reminded of the importance of good teachers:

> An indisputable conclusion of research is that the quality of teaching makes a considerable difference in children's learning. Studies indicate that about 15 percent of the variation among children in reading achievement at the end of the school year is attributable to factors that relate to the skills and effectiveness of the teacher. In contrast, the largest study ever done comparing approaches to beginning reading (The First Grade Studies by Bond and Dykstra, 1967) found that about 3 percent of the variation in reading achievement at the end of the first grade was attributable to the overall approach of the program (p. 85).

Classic and current research studies illuminate these findings. For example, in a quantitative study conducted over 30 years ago, Chall and Feldmann (1967) identified two specific qualities of teachers that are related to positive student achievement: competence and a thinking approach to learning. In a recent qualitative study, Ciardi (1994) found that teachers in

an urban school in which students achieved higher scores than predicted by their socioeconomic status (SES) on an open-ended test were very reflective about their practice. The growing number of classroom/action research projects described in the literature suggests that more and more teachers understand the need for reflection and are including it in their already busy days (Braunger and Lewis, 1997).

This being the case, the discussion about reading improvement in Washington State must consider the critical role of teachers and how to utilize and build upon their knowledge and experience.

A Historical Context

The controversies that surround reading are not new. The history of reading research provides a context for understanding the contentiousness that has marked the past decade (Michigan Partnership for New Education, 1994).

In the early years of schooling in America, children were taught sound-symbol correspondences and read the Bible and patriotic essays. Over time, basal readers that combined stories geared to students' interests and abilities with systematic decoding instruction became standard. However, during the Progressive Movement of the 1930s and 1940s there was a shift to approaches that emphasized meaning and sight words.

In 1955, Rudolph Flesch published *Why Johnny Can't Read,* a call for the return to phonics, which politicized the debate about beginning reading and polarized the research and teaching community. In 1959, the National Conference on Research in English convened a group of researchers with the goal of ending the debate. The research that followed, the Cooperative Research Program in First Grade Reading Instruction and Chall's study of beginning reading (1963), found an advantage for programs with a combined emphasis on meaning and phonics. These findings, though not well received, ultimately led to an increased emphasis on phonics in basal series (Chall, 1998, personal communication). This was followed, in the 1980s, by a movement back toward meaning-based approaches associated with the whole language philosophy (Goodman, 1976; Goodman and Goodman, 1979).

Predictably, the debate about beginning reading intensified. Another synthesis of the research on beginning reading by Adams (1990) confirmed Chall's 1967 findings and extended them with a discussion of the critical role of phonemic awareness in word identification. The controversy

became highly politicized. Reviews of the research were conducted, including those by the Northwest Regional Educational Laboratory (1997) and the Texas Education Agency (1997). Each of these reviews represents a different theoretical perspective. However, despite their differences,[1] both acknowledge the importance of a combined emphasis on meaning and phonics in beginning reading.

In 1997, as in 1959, a group of reading researchers convened to put an end to the "reading wars." Based on the assumption that "empirical work in the field of reading had advanced sufficiently to allow substantial agreed-upon results and conclusions" (National Academy Press, 1998, p. v), the Committee on the Prevention of Reading Difficulties in Young Children synthesized the research on reading development and beginning reading practices. As in the past, their report calls for a combined emphasis on meaning and what they refer to as phonological processing (phonics). Reviewed by educators and researchers from as near as Arizona and California and as far as England and Australia, it highlights many areas of agreement and invites interested parties to meet in the center (Pearson, 1996). The findings about beginning reading that are reported by the Committee on the Prevention of Reading Difficulties in Young Children (National Academy Press, 1998) are central to the present document.

What Counts as Research

There are those who would suggest that, for methodological reasons, some of the studies that were considered by the committee may not contribute to the knowledge base on beginning reading. An in-depth discussion of these issues is presented in the report. However, it is important to note that, in the spirit of consensus, a range of quantitative and qualitative studies were examined: case studies, correlational studies, experimental studies, narrative analyses, quasi-experimental studies, interviews, surveys, and ethnographies. Further, in their analysis, the authors were guided by the principle of converging evidence which proposes that conclusions about beginning reading can be drawn from different kinds of experiments that "consistently support(s) a given theory while collectively eliminating the most important competing explanations" (p. 35).

[1] See Table 1.

In the report, the authors address a number of methodological issues that have emerged in the debate about beginning reading (for a complete discussion, see. pp. 34–40). One is the notion that correlational studies cannot contribute to knowledge. The authors take the position that correlational studies are useful in corroborating or ruling out hypotheses and/or variables, particularly if their findings converge with those of other kinds of research.

The Committee on the Prevention of Reading Difficulties in Young Children provides a broader context for the spirit of compromise that shapes their report: "We found many informative literatures to draw on and have aimed in this report to weave together the insights of many research traditions into clear guidelines for helping children become successful readers" (p. 2). The committee goes on to explain the factors that propelled them toward consensus including:

> Policies of federal, state, and local governments impinging on young children's education; the pressures on publishers of curriculum materials, texts, and tests; programs addressed to parents and to community action; and media activities (p. 2).

This same spirit of consensus, along with the desire to shift attention away from the reading wars and back to children, led to the inclusion of the findings of the report by the National Research Council (1998) in the present document. Findings from other studies and syntheses of reading research have also been included to further articulate a research base for moving Washington State's students to higher standards in reading (see, for example, Braunger and Lewis, 1997; Texas Education Agency, 1997).

Reading: Theoretical and Research Perspectives

The terms "reading" and "literacy" are used synonymously in this document. This usage reflects an understanding of the complex nature of our engagement with print as well as the acknowledgment of the reciprocal relationship between reading and writing. An underlying assumption of this document is that if Washington's students are to become fully literate, they will need to become highly competent, not only in reading and writing, but also in speaking and listening. Competency in these four areas will enable our students to gather information, think critically, and communicate effectively in all content areas and in real-life situations.

The following theoretical and research perspectives shape our view of reading development and inform decisions concerning pedagogy.

§ Reading is the process of constructing meaning through the dynamic interaction among the reader's existing knowledge, the information suggested by the written language, and the context of the reading situation.

As previously stated, our understandings about reading have changed greatly in recent years. Reading was once considered a "bottom up" process in which the reader advances in linear fashion from letters to words to sentences to meaning. In this model, the reader utilizes background knowledge only after decoding words in the text. Reading has also been described as a "top down" process in which the reader samples the text, using background knowledge to predict and make hypotheses about words and meanings.

Our current understanding is that reading is recursive and interactive and includes both "bottom up" and "top down" processing. A reader "transacts" with a text, processes visual information (print), relates it to prior/background knowledge, and constructs a meaning that approximates the author's intended meaning (Rosenblatt, 1978). For teachers, this view of reading suggests that although our students read the same text, the meanings they construct may vary greatly.

§ Background knowledge plays a key role in comprehension.

The role of background knowledge in comprehension is critical (Anderson and Pearson, 1984). A reader's organized background knowledge (*schemata*) provides a foundation for comprehending, learning, and remembering what is read (Anderson, 1984). Readers draw on three kinds of background knowledge to construct their own meanings of texts (McNeil, 1992):

- Specific subject area knowledge.
- General world knowledge that is common to many subjects.
- Knowledge of text structures.

Skilled readers possess necessary background knowledge in all three areas and are able to utilize this knowledge to acquire new information, draw inferences, attend to important sections of texts, and summarize key ideas (Anderson, 1994). Readers who have difficulty understanding and remembering what they have read, may lack or may not activate necessary background knowledge.

Teachers can support students' comprehension by (1) activating existing background knowledge before reading, (2) building background knowledge related to the topic, and (3) teaching text structures (McNeil, 1992).

§ Vocabulary knowledge and comprehension are strongly related.

Vocabulary words are the labels for the concepts and topics in a reader's background knowledge and are thought to play a central role in comprehension (McNeil, 1992). When a reader encounters a word in a text, word associations that allow meaning to be created are activated (McNeil, 1992) and meaning is constructed. Vocabulary is acquired (1) through wide and varied reading; (2) from exposure to language in school, at home, in the community; and (3) from explicit vocabulary instruction (Alvermann and Phelps, 1998).

In planning vocabulary instruction, it is important for teachers to consider that words (1) have many different meanings that are context-dependent, (2) are constantly being redefined as readers increase their background knowledge, and (3) should be learned as parts of conceptual frameworks or networks of ideas (McNeil, 1992).

§ Fluency is essential for comprehension.[2]

Any discussion of reading and/or comprehension must address fluency, "the ease or naturalness of reading" (United States Department of Education, 1995, p. 1). Fluent readers use appropriate phrasing, adhere to the syntax of the text, and read with expression. It is widely recognized that fluency is closely related to comprehension (Carnine and Silbert, 1979; Goodman and Goodman, 1979; as cited in Samuels, Schermer, and Reinking, 1992; NAEP, 1995).

Fluency and comprehension are supported by accuracy (freedom from word identification problems) and rate (how fast a person reads). As readers become more skilled at accurate word identification, they begin to require less conscious attention for sound-symbol correspondences and spelling patterns and are able to recognize words more quickly.

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[2] All students in Washington State will be tested on rate, accuracy, and fluency at the beginning of Grade 2 as a means of identifying those students who are at risk.

Reading rate can suggest the presence or absence of automaticity.[3] However, reading rate can be influenced by a number of other factors including the difficulty of the text, the familiarity or complexity of the content or text structure, the mode (oral or silent) of reading, and by the reader's cognitive processing speed (Carver, 1990, as cited in Leslie and Caldwell, 1995). Teachers must consider all of these with regard to a particular student's reading rate.

§ Instructional decisions must be shaped by an understanding of the reader and a knowledge of the reading process and the skills and strategies that support reading development.

The interactive/transactive view of reading presented above places assessment at the center of teaching and learning:

> We need an assessment system that honors the alignment of instruction and assessment so that we truly hold ourselves and our students accountable for important instructional outcomes ... (Valencia, 1990, p. 60).

A primary purpose of assessment is to provide information that will enhance literacy teaching and learning (IRA/NCTE, 1994). Our classrooms are increasingly more diverse and our students bring a range of skills and strategies to the highly complex task of reading. Effective instruction requires that teachers (1) have a sound knowledge of the elements of skilled reading, (2) frequently monitor student development, and (3) utilize assessment data for both instructional decision making and monitoring their own effectiveness as literacy teachers (Templeton, 1995). Skilled readers orchestrate the various components of reading as they proceed through text: (1) comprehension, (2) vocabulary, (3) word identification, and (4) rate and fluency (Lipson and Wixson, 1997). In assessing and planning instruction for developing readers, it is helpful to consider each of these components individually; however, progress in all components is necessary so that students can utilize them interactively to construct meaning.

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[3] Automaticity theory suggests (1) that readers have a limited amount of attention; (2) that word recognition and comprehension require attention; (3) that if the task of reading requires more attention than is available, readers will divide attention between word identification and comprehension. This strategy "places a heavy load on memory and attention, making beginning reading slow and difficult" (Samuels, Schermer, and Reinking, 1992).

Cazden (1992) points to the need for balance in the assessment, practice, and application of the component skills of reading. She compares reading with driving a car, and suggests that each requires "practice of the component skills" (p. 4) as well as the integration of the components "into a larger act (which) must have a personal purpose, an intentionality, that alone provides the meaning that binds the parts into the whole" (p. 4).

Classroom teachers who understand the complex nature of reading and recognize patterns in students' reading behaviors (Burns, Roe, and Ross, 1992; Johnson, 1978) are able to use a variety of assessment tools and multiple sources of data to plan teaching and learning experiences that promote reading development (IRA/NCTE, 1994), including informal observations of students' reading behaviors in classroom settings (Clay, 1993; Goodman, 1978) and informal reading inventories such as the Qualitative Reading Inventory II (Caldwell and Leslie, 1995) and the Analytic Reading Inventory (Woods and Moe, 1989). Both include methods for examining students' errors, or miscues, as a means of understanding the strategies readers use and identifying appropriate instructional approaches (Goodman, 1973; Goodman, Goodman, and Burke, 1987).

More formal and standardized instruments can provide information about teaching and learning at the school level. These include norm-referenced tests, criterion reference tests, achievement tests, and performance-based tests (Burns, Roe, and Ross, 1992; Lipson and Wixson, 1997; Salvia and Ysseldyke, 1988; Templeton, 1995). Clear and effective instruction based on thoughtful assessment is the first step in meeting the needs of all students.

§ The literacy learning of our students is shaped by social and cultural contexts.

Social theorists have contributed to our understanding of literacy. Generally, their work suggests that literacy learning is the social accomplishment of a group or groups (Wertsch, 1991) and that language and culture are pivotal in both defining what it means to be literate (Rogoff, 1990) and in developing literacy and cognition (Bruner, 1978; 1983, Vygotsky, 1978). Specific understandings that emerge from the work of the social theorists can contribute to the teaching and learning of all students, particularly those who struggle with reading.

Vygotsky (1978) proposed that the cognition (mental functioning) of an individual originates in social communication and cultural practice (Wertsch, 1991) and that children benefit from "having someone more knowledgeable than themselves guide their learning" (Alvermann and Phelps, 1998, p. 38). In Vygotsky's view, learning occurs in the "zone of proximal development," which he described as the difference between what a child can do independently and what he or she can do with instructional support. Teachers can design instruction in which social interactions can change student thinking and develop mental functioning[4] (Moll, 1990). The view that language and culture shape literacy learning holds important implications for the classroom.

Children's initial understandings about literacy are learned at home. Cultural variations in oral language, writing, storytelling, and book use have been well documented, particularly as they are thought to impact school learning (see, for example, Au, 1980; Au and Jordan, 1981; Heath, 1983a; Jacob and Jordan, 1987; Jordan, 1995). Understanding this enables teachers to view variations as differences rather than deficits.

- Children benefit from social interactions in the classroom that are carefully structured so that students have opportunities to work in their "zones of proximal development."

- If students are to understand that reading is the construction of meaning, they must have many opportunities to engage in meaning making activities.

§ Students must have opportunities for carefully structured discussion that promotes language development, comprehension, and higher level thinking.

Discussion has always been central to literacy teaching and learning. Traditionally, teachers have dominated classroom interactions (Cazden, 1988; Gambrel and Almasi, 1996) by asking-comprehension questions (Barr and Dreeben, 1991; Durkin, 1978). Recent research points to the value of carefully planned discussion for promoting active and deep comprehension of texts, higher level thinking, and the oral language development of all students (Gambrel, 1996), including those for whom English is a second language (Goldenberg, 1996).

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[4]It is interesting to note that Vygotsky viewed the zone of proximal development as an alternative to static IQs (Moll, 1990).

Classroom discussions allow students to engage in talk about literature. The kinds of classroom discussions described in the research vary. However, they are all carefully structured so that participants construct meaning together. The teacher is an active participant (McGee, 1995) in discussions and builds opportunities for student development (Vygotsky, 1978). For example, in reciprocal teaching (Palincsar, 1984; Palincsar and Brown, 1987), the teacher initially models the use of four comprehension strategies: predicting, clarifying, questioning, and summarizing. Over time, the students take over the role of the teacher, using the four strategies to explore various texts. Reciprocal teaching in combination with story reading can support the oral language development of first graders (Palincsar and Brown, 1989), as well as the reading comprehension of older students.

Other examples of discussion-based activities include book clubs (Lapp, Flood, Ranck-Buhrm Van Dyke, and Spacek, 1997), grand conversations (McGee, 1992), and instructional conversations (Goldenberg, 1993). These structures encourage students to talk about books, respond to literature (Rosenblatt, 1991), and engage in dialogues that can support development (Vygotsky, 1978). These discussion-based activities hold much promise for diverse and complex classrooms.

§ **Reading requires motivation and continuing practice. Most children require several years of effort before they develop high levels of reading competency. Children must remain motivated and engaged in reading tasks over time.**

Teachers have always understood the importance of motivation and have acted on this by (1) helping students select engaging literature, (2) providing teaching and learning experiences that are challenging but not frustrating, and (3) by applauding students' best efforts. A growing body of research supports these practices and provides a research-based understanding of the many aspects of motivation and engagement. In a review of recent literature, Guthrie and Wigfield (1997) capture current conceptions about motivation and engagement:

- Motivations for literacy are varied and complex.
- Motivation reflects students' beliefs in themselves as readers.
- Motivated readers value and are interested in reading.
- Motivation and strategies are related.[5]
- There are interventions that will foster motivation.
- Motivation is not centered in the learner, alone. The teacher and classroom practice can engage students.

According to Guthrie and Wigfield (1997), in classrooms that support students' active involvement in learning, teachers hold themselves and their students accountable for engagement. Further, instruction tends to be student-centered and to emphasize social interaction and collaboration. Finally, instruction is at an adequate level of challenge—not too easy and not too hard (in the student's zone of proximal development[6]).

§ Planning for instruction must include a careful consideration of reading materials.

Beginning and developing readers should be immersed in print-rich environments. Narrative and expository texts, newspapers, periodicals, collections of poetry, and a range of other materials at varying levels of difficulty should be available to support students' learning across the grades (Lipson and Wixson, 1997). Predictable and well-written texts that "maximize the regularity of the print-to-speech mapping system of English" (Beck, 1998, p. 22) should be accessible for beginning readers.

As teachers plan for assessment-based instruction, they must be sensitive to the level of difficulty of texts in relation to particular students. Three levels of difficulty have been identified: **frustration** (the material is too difficult), **instructional** (the material can be read with the teacher's assistance), and **independent** (the material can be easily read and comprehended).

The following guidelines are provided to support teachers in selecting texts with and/or for children:

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[5] All children need to learn strategies for word identification and comprehension. Their facility with these skills promotes motivation which in turn leads students to activities that further their strategy development (National Academy Press, 1998).

[6] See above.

- If the goal is to consolidate knowledge, the student should have opportunities to read extensively in books at an independent level (Samuels, Schermer, and Reinking, 1992).

- If the goal is to advance reading development, student and teacher should work together with texts that are slightly above the student's level of development in wording, syntactic, **or** conceptual knowledge. In other words, the student should work the zone of proximal development (Vygotsky, 1978).

- To build the complex vocabulary, conceptual, and syntactic knowledge that students need at the fourth grade and beyond, teachers should read to children from texts they cannot read on their own, thereby providing the scaffolding (Indrisano and Chall, 1995; Vygotsky, 1978) for advancing student development.

§ Skilled Reading: The Goal of All Reading Instruction

The goal of all reading instruction is to create skilled readers. Skilled reading is a complex phenomenon that develops over time and occurs only when the demands of the text and the reader's knowledge, skills, and strategies are in alignment (Zakaluk and Samuels, 1988).

Text factors that influence skilled reading include (1) the complexity of the language, syntax, and information presented in the text and (2) the text structure and organization.

The knowledge, skills, and strategies that are prerequisites for skillful reading reflect the interactive nature of the reading process. Washington State's essential academic learning requirements describe the four standards that students must attain to become skilled readers:

- The student understands and uses different skills and strategies to read.
- The student understands the meaning of what is read.
- The student reads different materials for a variety of purposes.
- The student sets goals and evaluates progress to improve reading.

These standards are consistent with research-based models suggesting that skilled readers (Lipson and Wixson, 1997; National Academy Press, 1998; Paris, Lipson, and Wixson, 1994; Pearson, Roehler, Dole, and Duffy, 1992):

- Read strategically and purposefully in a goal-directed manner.
- Possess extensive background knowledge.
- Search for connections between information in the text and their background knowledge.
- Are able to identify important and less important information in texts.
- Are able to analyze and synthesize information within and across texts.
- Draw inferences.
- Ask questions of themselves as they read.
- Utilize knowledge of text structure to facilitate comprehension.
- Are metacognitive about their reading—know when comprehension breaks down and utilize corrective strategies.

Skilled reading assumes fluency. In turn, this suggests that skilled readers:

- Utilize phonological processes for word identification and meaning construction.
- Utilize context (meaning and syntax) for understanding the meaning of a word in a sentence[7] and for choosing the correct pronunciation of a word in context.[8]
- Do not skip many words as they read and do not guess words from context.[9]

Skilled reading depends on teachers who understand reading development and create correspondingly appropriate teaching and learning environments.

§ Learning to read is a developmental process that begins at birth.

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[7] In a sentence, the word spring can refer to the season or a piece of metal. Context is essential for meaning.

[8] The word read can be pronounced like "reed" or "red." Context is critical for correct pronunciation and meaning.

[9] The research on skilled reading is particularly helpful in providing clarification of the role of context (semantic and syntactic knowledge) in word identification and meaning construction. As indicated above, skilled readers utilize their knowledge of sound-symbol correspondences and spelling patterns (Adams, 1990; Moustafa, 1995) for word identification. In addition, they use context to "verify their identification of an unfamiliar word by cross-checking to determine whether or not it fits the context (Strickland, 1997, p. 17), to determine the pronunciation of a word that is dependent on context for pronunciation (e.g., read), and to understand the meaning of a word. On the other hand, unskilled readers, lacking adequate knowledge of sound-symbol correspondences and spelling patterns, rely heavily on context for word identification (Perfetti, Goldman, and Hogabaum, 1979; West, Stanovitch, Feeman, and Cunningham, 1983). Readers who do not come to recognize words automatically will fall steadily behind their peers (Stanovitch, 1986).

Early Understandings About Oral Language

Learning to read is a developmental process that begins with the acquisition of oral language. During the preschool years, children acquire extensive knowledge of the sounds of language (phonology), the structure of the language (syntax), and the rules for using language in different settings (pragmatics). They also develop extensive networks of concepts and related vocabulary (National Academy Press, 1998; Ruddell and Ruddell, 1994). By the time they enter school, children know many words and are able to produce and understand a number of different grammatical structures. Further, they have the capacity to use language flexibly. They know "what it is appropriate to talk about, when, with whom, how, and with what speech patterns" (Ruddell and Ruddell, 1994, p. 87).

Before formal schooling, children are developing (1) linguistic awareness—knowledge of what a word is and the ability to manipulate and segment words, syllables, and phonemes from speech, (2) metalinguistic awareness—the capacity to monitor, evaluate, and control language (Yopp and Singer, 1994), and (3) the ability to engage in discussions about books (National Academy Press, 1998).

Phonemic Awareness

Children learning to read an alphabetic language, like English, must learn the alphabetic principle—that letters stand for the sounds of the language. To reach this understanding, children must also develop phonemic awareness, the knowledge that phonemes—individual sound units in words—are "abstractable and manipulable components of the language" (Adams, 1990, p. 65).[10] In the research, there is both agreement and controversy about various aspects of phonemic awareness. However, based on converging evidence from the research, the Committee on the Prevention of Reading Difficulties (1998) reports that phonemic awareness:

- Is a strong predictor of reading success in young children.
- Is key to understanding the alphabetic principle and therefore to learning to read.
- Is key to learning to spell.
- Is difficult for most children.

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[10] Phonemic awareness is not the same as phonics. Phonemic awareness has to do with sounds without letters. Phonics has to do with the correspondence between letters and sounds (Chall, personal communication, 1998).

- May be acquired before formal schooling through extensive oral language experiences like word play and rhyming games.
- Correlates with reading ability in the early and later grades.
- Is a prerequisite for learning letter-sound correspondences;
- Develops as a result of reading instruction.
- Can and should be taught to students who have not acquired it before kindergarten.

Early Understandings About Written Language

Early experiences with written language can provide children with a solid foundation for school literacy learning (Sulzby and Teale, 1991; Teale and Sulzby, 1986, 1994). Before they enter kindergarten, many children have devoted countless hours to storybook reading, *Sesame Street*, and other language-related activities (Adams, 1990). From these experiences, particularly those with storybooks (Purcell-Gates, McIntyre, and Freppon, 1995, as cited in National Academy Press, 1998), these children have gained an interest in books, the capacity to understand and talk about stories, and to connect the information in stories to their background knowledge. They have also learned that it is print that is read in stories. They are able to identify many of the alphabet letters and have acquired at least the beginnings of phonemic awareness. A more complete list of the understandings that are gained by children who go on to become successful readers is presented in Table 2.

There are children whose home experiences do not as readily support their school literacy learning. These children depend on school for their academic success and they must acquire these understandings as quickly as possible if they are to develop as readers and avoid reading failure.

Learning to Read, K–3

Although children enter school with a wide range of knowledge about oral and written language, they are all expected to reach certain benchmarks in their reading development. In Washington State, second graders are expected to demonstrate proficiency in word identification. Fourth graders must demonstrate competence in a range of comprehension skills and strategies. This is not to suggest that K–2 students do not engage in comprehension activities or that students in fourth grade and beyond do not focus on the smaller components of language as necessary.

Educators in Washington must assist students in demonstrating the required competencies at the required grades, regardless of how they situate themselves in the debates that surround reading. A developmental perspective can support teachers in this endeavor.

As stated in the essential academic learning requirements, reading is:

> ... the process of constructing meaning through the dynamic interaction among the reader's existing knowledge, the information suggested by the written language, and the context of the reading situation.

The reader's "existing knowledge" as well as the "information suggested by the written language" vary with development (Chall, 1983, 1986). Many beginning readers possess extensive knowledge about oral and written language. They may engage in "pretend reading" (Purcell-Gates, 1991) which sounds like written language, but is based on picture clues. Over time and with good instruction, background knowledge, skills, and strategies that support word identification and comprehension are developed.

Research on early reading suggests that children move through phases in word identification (Ehri, 1994; Frith, 1985; National Academy Press, 1998). During the earliest, logographic phase, they "read" a word based on visual cues (such as the shape of one of the letters or a logo like the MacDonald's "golden arches"). Although they have little knowledge of how to process print "out of context" (Ehri, 1994, p. 328), they may know much about print, including that:

- Print has to do with the real world.
- Print and drawing are different.
- Print has directionality.
- Print can stand for spoken language.
- Print occurs in different places.
- Print is made up of letters.

Gradually, young readers begin to link letters with sounds both in reading and spelling (alphabetic phase). Invented spelling can support their developing phonemic awareness and understanding about letter-sound correspondences. Over time, they enter the orthographic stage and are able to use spelling patterns or letter sequences that support word

identification.[11] With practice, fluency and automaticity are gained through wide reading.[12] The research indicates that, for beginning readers, comprehension is limited by unskilled word recognition and lack of fluency and automaticity (National Academy Press, 1998; Samuels, Schermer, and Reinking, 1992). However, exposure to stories and explicit instruction in comprehension strategies can support students' construction of meaning (see, for example, Feitelson, Kita, and Goldstein, 1986; Morrow, 1988, 1989; Palincsar and Brown, 1984).

Tables 1–4 summarize the understandings that children in the primary grades are expected to acquire (National Academy Press, 1998).

Beyond Fourth Grade

With good teaching, many students continue their reading development. They acquire the skills and strategies for learning new information in the various content areas and the reading habits and skills necessary for academic success—i.e., the ability to analyze, to synthesize, and to think critically.

Practices That Support Reading Development

Introduction

All children must become skilled readers. To accomplish this, teachers must be knowledgeable and purposeful. They must understand the reading process, reading development, and assessment. And, they must be concerned with planning balanced instruction that includes a consideration of comprehension, vocabulary, word recognition, and fluency (Lipson and Wixson, 1997). The instructional emphasis on each of these will vary among students and across grades. However, the overarching goal of all instruction is the creation of meaning. Regardless of the age or level of development of the reader, reaching this goal requires extensive reading in a variety of genres.[13]

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[11] It should be noted that a review of the literature reveals disagreement about whether very beginning readers process words using grapheme-phoneme correspondences or larger "chunks" of words (see, for example, Ehri, 1994; Goswami, 1990; Goswami and Bryant, 1990–1994; Moustafa, 1995).

[12] See above.

[13] In *A Framework for Achieving the Essential Academic Learning Requirements in Reading*, the Commission on Student Learning suggests a grade-by-grade sequence for introducing students to the various genres that are represented in the WASL.

Research on Practices for Beginning Readers

Kindergarten and first grade teachers are in a uniquely responsible position. It is in their capacity to provide initial reading instruction that lays the foundation for successful reading development. While it is true that there is wide variation in the understandings that children bring to kindergarten, the goals for all children by Grade 4 are the same. It is therefore incumbent upon teachers to move children toward the fourth grade benchmarks, regardless of their levels of proficiency upon entering school. For some children, this will mean more and more intensive instruction (Chall et al., 1990).

In kindergarten, teachers must prepare their students for the requirements of first grade.

> The delicate balance for the kindergarten teacher is thus one of realizing means of promoting literacy learning in ways that are at once developmentally sensitive and appropriately foresighted in order to ensure that, as children leave kindergarten, they have the capacities needed to function well in the typical first grade (National Academy Press, p. 179).

Specifically, by the end of kindergarten, all children should have acquired a love of reading and should, at a minimum (1) be familiar with books and print, (2) have acquired some phonemic awareness, and (3) be able to identify and write the letters of the alphabet.[14]

The following practices are recommended for kindergarten (National Academy Press, 1998):

- Oral language activities that build expressive and receptive language and verbal reasoning.
- Reading aloud with children to promote appreciation and comprehension.
- Reading and book exploration by children for developing print concepts and basic reading knowledge and processes.
- Writing activities for developing printing and spelling abilities.
- Writing activities that communicate that print carries a message.

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[14] See Appendix, Table 3.

- Thematic activities that integrate and extend children's knowledge.
- Activities that teach children to recognize and write the letters of the alphabet.
- Activities with words that build an initial sight vocabulary and an understanding of the alphabetic principle.

In first grade, all children must become readers.[15] Their success in reaching this goal is dependent on good teaching in Grade 1 that builds on kindergarten instruction. First grade teachers, like their kindergarten counterparts, can prevent reading failure in their young readers. The following are recommendations for first grade (National Academy Press, 1998):

- Instruction that fosters comprehension by building linguistic and contextual knowledge.
- Explicit teaching of comprehension strategies, including reciprocal teaching (Palincsar and Brown, 1984, 1989; Palincsar, Brown, and Campione, 1993).
- Explicit teaching and practice of sound structures that lead to phonemic awareness.
- Instruction that leads to familiarity with sound-symbol correspondences, spelling conventions, and their use in word identification.
- Opportunities for children to learn sight words.
- Independent reading, including oral reading with texts that are well below frustration level.
- Instruction with reading materials that are slightly more difficult than students are able to read by themselves.

During second and third grade, children must build on the capacities acquired during kindergarten and first grade to become fluent readers. They must make gains in comprehension, vocabulary, word recognition, spelling, and fluency. With good instruction, they will go on to fourth grade with the knowledge, skills, and strategies that support them in reading to learn the complex concepts and abstract vocabulary of the content areas. The following practices are recommended for Grades 2 and/or 3 (National Academy Press, 1998):

[15] See Table 4.

- Instruction that continues to develop knowledge of sound-symbol correspondences and knowledge of spelling (orthographic) patterns[16] that support students' word identification.
- Numerous opportunities for exposure to print/reading.
- Opportunities for reading connected text that is at an appropriate level of challenge.[17]
- Repeated reading of texts for fluency.
- Direct teaching of vocabulary.
- Wide reading for vocabulary development.
- Direct teaching of comprehension and metacognitive strategies.
- An emphasis on building students' conceptual and vocabulary knowledge.

An additional practice that supports development is reading aloud. Teachers read to students for a variety of purposes. Often, the goal is to foster a love of reading. Chall and Indrisano (1997) suggest that reading from texts that exceed students' current reading levels can also increase their vocabulary, conceptual, and syntactic knowledge.

Balanced Instruction for Beginning Readers

The challenge for teachers and schools is to create a beginning reading program that reflects the theories and research described in this report and responds to the needs of their particular students. There are those who would suggest that schools can meet this challenge by adopting a research-based program or particular basal series.[18] An alternative approach that has been suggested is "balanced instruction" which involves teachers in planning assessment-based instruction that incorporates research-based practices.

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[16] Begin with phonetically regular words like pot or hat; continue with more complex spelling patterns, roots, and affixes. Research indicates that struggling readers who are unable to use spelling patterns for word identification often guess the word from the context. "An over-reliance on context is symptomatic that orthographic processing is proceeding neither quickly nor completely enough to do the job" (National Academy Press, p. 212).

[17] 95 percent of the words should be read easily and fluently (Clay, 1985; Lipson and Wixson, 1997, as cited in National Academy Press, 1998).

[18] In some cases, a particular program or basal series may provide the carefully articulated framework of necessary skills and strategies across the grades that has been found to be characteristic of effective schools (Purkey and Smith, 1983). Also, one or the other may provide access to literature that is at an appropriate level of challenge.

A discussion of the assumptions behind these perspectives is beyond the scope of this paper; however, the former seems based on the belief that there is one best method that works for all students and is superior to what teachers are able to design. Chall (1963) reminds us of the important role that teachers can play in instruction:

> Many teachers have developed methods of their own that are far superior to any that have been investigated and commercially published ... these teachers are getting results that would be the envy of any of the authors of scientifically developed and tested methods (p. 308).

In planning balanced and successful instruction, teachers must take into account the needs and diversity of their students. Some enter school with little experience with print. They will need opportunities to work with connected text and meaning-based activities as well as intensive instruction in word identification strategies (Adams, 1990; Braunger and Lewis, 1997; Chall, 1983; Cunningham and Allington, 1994; National Academy Press, 1998). Others students enter school "on the brink of independent reading and writing, if not there already" (Adams, 1990, p. 416). For those children:

> "curricula that places elementary phonics first and foremost in time and emphases are inappropriate ... it (phonics instruction) may best be conceived as a support activity, carefully covered but largely subordinated to the reading and writing of connected text" (Adams, 1990, p. 416).

Planning balanced instruction for diversity requires that teachers have a knowledge of the research and an assessment-based understanding of their students.[19] Their "interpretations of relevant research that informs the reading program and their unique transactions with children in individual classrooms are pivotal" (Freppon and Dahl, 1998, p. 240).

Two research-based models of balanced beginning reading instruction (Braunger and Lewis, 1997; Texas Education Agency, 1997) are presented in Table 1. These are compared and contrasted with the findings presented in this report. There is a remarkable similarity in the component features of all the models. The differences, which reflect varying theoretical stances, lie in the degree of explicit instruction suggested or implied and in the emphasis placed on isolated and/or contextualized strategy instruction.

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[19] See "at-risk children."

Freppon and Dahl (1998) describe other models of balanced instruction that have been described in the literature. The first is a highly structured program that includes an hour each day of explicit instruction on words (letter-sound correspondences, reading decodable text, and work on word patterns and spelling) and another hour on literature, reader response, and writing (Honig, 1996). The remaining models (Au, Carroll, and Scheu, 1998; McIntyre and Pressley, 1996; Pressley, 1998; Tompkins, 1997; Weaver, 1998) all suggest the need for literature- and language-based programs that include instruction in letter-sound correspondences and comprehension strategies, particularly for children who depend on school for literacy learning.

Pearson (1997, as cited in Freppon and Dahl, 1998) proposes that a balanced beginning reading program should include a consideration of the following:

- Children must learn that they can represent their words with letters.
- Phonemic awareness and letter-sound correspondences can be learned and assessed in the context of engaging activities.
- Phonics should be taught as a means of constructing meaning.
- Integration of the language arts.
- Authentic literacy experiences (texts and tasks).
- High expectations for all children.
- Teachers model strategies.
- Student control (students make decisions about what they read).

Good teaching is complex, requires hard work, and takes a long time to learn well. Teachers of beginning reading need knowledge of research and an understanding of how to best apply it (Freppon and Dahl, 1998). Beginning reading instruction must include a focus on word recognition and comprehension. The application of research depends on the decision making of a well-informed and reflective teacher.

Fourth Grade and Beyond

By Grade 4, the demands of reading change. Students must read and learn increasingly more complex and abstract concepts and vocabulary. Those who have benefited from excellent teaching in the primary grades now read with fluency and understanding and are well on their way to skilled reading. Some students will become skilled readers independently. Many others will benefit from explicit instruction in comprehension strategies and their application to specific content areas (Baker, 1991; Palincsar and Brown, 1984).

Teaching Comprehension

In the late 1970s, Dolores Durkin conducted a landmark study in which she found that an overwhelming amount of reading instruction consisted of asking and answering comprehension questions. Two decades of research have provided a better understanding of comprehension and the strategies that support it.

Comprehension: The Role of Background Knowledge

In the essential academic learning requirements, reading is defined as a cognitive process in which the reader creates or constructs meaning. In this view, meaning does not reside in the text, but rather is created as the reader transacts with the text (Rosenblatt, 1978, 1982), drawing upon background knowledge from a variety of experiences (Anderson and Pearson, 1984; Brown, Campione, and Day, 1981; Lapp and Flood, 1986). The reader's background knowledge determines the meaning that is created (McKeown, Beck, Sinatra, and Loxterman, 1992). Specifically, background knowledge (Anderson, 1992):

- Allows the reader to assimilate new information with existing knowledge.
- Helps the reader determine what is important and where to apply attention in a text.
- Permits the reader to draw inferences.
- Allows the reader to use knowledge of text structure to comprehend text.
- Supports the reader in summarizing texts.
- Allows the reader to draw inferences that support recall and memory.

As indicated previously, there are three kinds of background knowledge with which teachers must be concerned (Anderson, Reynolds, Schhallert, and Goetz, 1997). The first, domain knowledge, is knowledge of specific subjects or topics (e.g., the American Revolution). The second is knowledge of text structures that are utilized in specific content areas (e.g., compare and contrast or cause and effect). The third, general knowledge, is applicable to a variety of subjects and allows the reader to go beyond literal meanings to draw inferences (McNeil, 1992). The connection between content-specific background knowledge and comprehension suggests that teachers can promote this match by teaching strategies that are applicable to their particular content areas (Paris, 1985; Weinstein, 1987).

Comprehension: Metacognition

Metacognition, which is commonly defined as "thinking about thinking," involves knowledge and regulation of cognition (Baker, 1991). In reading, it refers to the reader's (1) understanding of the resources (background knowledge, skills, and strategies) required for comprehension (Alvermann and Phelps, 1998), (2) ability to recognize when comprehension breaks down (Brown, Bransford, Ferrara, and Campione, 1983; Paris, Lipson, and Wixson, 1983), and (3) the capacity to draw upon resources that will allow comprehension to proceed (Baker and Brown, 1980; Flavell, 1981).

Skilled readers are both metacognitive and strategic. They have a plan for comprehension that includes the flexible use of strategies before, during, and after reading (Flood and Lapp, 1991). Before reading, they assess what they already know about the topic, identify the structure of the text, set a purpose for reading, and make predictions about the content, based on their background knowledge. During reading, they actively engage with the text, paraphrase the author's words, confirm or refute their predictions, and monitor their comprehension and apply fix-up strategies when it breaks down. After reading, skilled readers summarize, analyze, evaluate, and apply the ideas in the text to unique situations.

A Closer Look at Teaching Strategies

Strategies have been defined as "systematic plans (that are) consciously adapted and monitored" (Harris and Hodges, 1995, p. 244) by skilled readers as they proceed in an orderly fashion through texts (Roe, Stoodt, and Burns, 1995). Research indicates that, with careful instruction, unskilled readers can be taught to use such strategies (see, for example, Bossert, Schwantes, 1995; Brown and Palincsar, 1984; Dole, Brown, Trathen, and Woodrow, 1996; Dole, Duffy, Koehler, and Pearson, 1991;

Haller, Child, and Walberg, 1988; Kelly, 1995; Randall, 1996; Westera and Moore, 1995). However, as would be expected based on research presented earlier, the ability to successfully use comprehension strategies depends on accurate and automatic word identification (Duffy and Roehler, 1987).

Roe, Stoodt, and Burns (1995) provide the following guidelines for effective strategy instruction. They suggest that teachers should:

- Model and demonstrate the use of strategies (Pearson and Gallagher, 1983; Brown and Palincsar, 1984).
- Explain strategies.
- Provide many opportunities for guided practice with specific strategies.
- Use think-alouds that make the thinking behind the strategies visible (Davey, 1983).
- Incorporate strategy instruction into regular subject matter classes (Weinstein, 1987) and in the context in which they will be applied (Paris, 1985).
- Emphasize students' awareness of their own strategies, other available strategies, and the importance of using strategies flexibly and adaptively.
- Emphasize self-monitoring strategies.

A Closer Look at Strategies: The Contents of Instruction

Flood and Lapp (1991), in their review of the research, provide the following guidelines for comprehension instruction:

1. Students benefit when they have access to literature, learn to self-select books, and read them with understanding. Wide and varied voluntary reading improves comprehension and engagement in reading and increases vocabulary.

2. Consistent with the theoretical perspectives and research presented in this report, students should be taught to prepare for reading by activating and building their background knowledge and previewing the text to predict the contents and determine the text structure.

3. Teaching students to generate and answer questions about texts will enhance their comprehension.

4. Students with little knowledge of narrative text benefit from explicit instruction in plot structures/story grammars.

5. Students who are taught the various structures of expository texts and how to use them in reading are better comprehenders than students who do not know or utilize this knowledge.

6. Summary writing can facilitate comprehension as it requires the reader to actively process the text, identify main points, paraphrase, and organize text information.

7. Notetaking may aid comprehension in that the reader must use various strategies for gathering information.

Many activities that incorporate these guidelines can be found in the literature. Some are useful before reading (see for example, Graves, Penn, and Cooke, 1985; Herber, 1978), others are utilized during and/or after reading (see, for example, Davey, 1982; Manzo, 1969, 1975; Raphael, 1982, 1986). Those that are intended to be utilized at all three points support each phase of strategic reading. One such activity is the K-W-L (What We Know, What We Want to Know, and What We Learned), developed by Donna Ogle (1992). Many teachers in Washington know and use this framework in a variety of lessons.

Reciprocal teaching is a complex framework for comprehension that has been studied in a number of settings (Palincsar and Brown, 1985; Palincsar, 1982, 1984, 1985). The teacher models, demonstrates, and explains four different comprehension strategies: predicting, clarifying, questioning, and summarizing. Then, the teacher and students take turns reading and practicing the strategies in a highly structured dialogue. Over time, the students assume the role of the teacher as they internalize the strategies.

Responding to literature. Teachers have always been faced with the question of how they can use a piece of literature in their classrooms without ruining

> "a perfectly good novel by assigning questions and papers and wringing out, chapter by chapter, every last bit of significance and interpretation, demolishing any possibility of enjoying a book purely for the personal and emotional responses it evokes" (Alvermann and Phelps, 1998, p. 323).

Reader response theory (Rosenblatt, 1978, 1982) provides a vehicle for considering ways to promote reading development while at the same time fostering the enjoyment of reading. Rosenblatt has described reading as a transaction between the reader and a text. She suggests that the reader's personal response to a text, which is of primary importance, can lie on a continuum between the aesthetic and efferent.[20] Rosenblatt proposes that there is no correct or incorrect interpretation of a text, and that teachers must acknowledge and encourage students' personal responses. At the same time, they must plan purposeful and meaningful activities that challenge students' thinking.

Based on a review of studies of reader response, Squire (1994, as cited in Indrisano and Chall, 1995) offers the following guidelines for teaching literature:

- Guide students' aesthetic and efferent responses to the text as a means of developing their literary and aesthetic understanding.
- A student's response is influenced by background knowledge and prior experiences. It is important for the teacher to consider this in selecting reading materials.
- A student's response is limited by background knowledge and prior experiences. Literature should be chosen to expand knowledge.
- Students responses to literature will vary according to genre. Generally, fiction evokes a more aesthetic response, while nonfiction evokes a more efferent response. Students need to read both.
- While there are similarities in the responses that readers have to a text, they are not identical. Teachers must give consideration to similarities as well as variations.
- Students should talk and write about their responses to literature throughout their formal schooling.
- Teachers must consider that students' responses to literature vary with development.
- Teachers should read aloud so students can hear the sounds of language. This, in turn, will enrich their response.
- Students will be affected by the ways we respond to literature in classrooms. Teachers must allow for both aesthetic and efferent responses.

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[20]Rosenblatt (1978) explains that in aesthetic reading the reader's focus is on feelings—the emotional response. In efferent reading the reader is concerned with "public meaning" (p. 102), recalling, paraphrasing, and analyzing.

Vocabulary

Skilled Readers and Vocabulary

A discussion of skilled readers would be incomplete without a consideration of vocabulary. Vocabulary knowledge and comprehension are closely related. Skilled readers possess extensive networks of concepts in their background knowledge and a vast number of vocabulary words with which to label those concepts (Anderson and Nagy, 1991). In reading, when students encounter an unknown word, they use their extensive background knowledge of word meanings, syntax, and context to determine the meaning (receptive vocabulary). They also have a vast number of words they use in speech and writing (expressive vocabulary).

Learning Vocabulary

How can teachers help their students acquire vocabulary knowledge and thereby foster their reading development? It has been estimated that the average student learns approximately 3,000 words each year and graduates from high school knowing 27,000 words[21] (Nagy and Herman, 1987). Clearly, they do not acquire that many words through classroom instruction (Alvermann and Phelps, 1997); the greatest number are learned in meaningful contexts that include wide reading and conversations at school, home, and in the community (Nagy, Herman, and Anderson, 1985). Thus, students need numerous opportunities to read, both in and out of school (Mason, Herman, and Au, 1991).

Some words can and should be learned through instruction (Anderson and Freebody, 1981; Baumann and Kameenui, 1991). The first concern for teachers, given the vast number of words that students encounter, is which words to teach. Roe and her associates (1995) describe three categories of words that students need to learn: (1) words that have commonly agreed upon meanings and appear in a range of content area and other texts, (2) words that have different meanings in different contexts, and (3) technical vocabulary that is specific to particular content areas. Herber (1978, as cited in Alvermann and Phelps, 1997) suggests that teachers consider four key questions in selecting words for vocabulary instruction from these three categories:

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[21]There are different levels of word knowledge. At the initial level, the reader has some familiarity with the word and its meaning. At the next level, the reader understands the word in context. At the third level, the reader is able to use the word in oral and written texts.

- Are the words necessary for the comprehension of a particular passage?
- Are the words of value in other contexts?
- Are the words (or the concepts they represent) familiar to students?
- Will teaching particular words enhance independent learning (e.g., selecting the word "reinvent" will provide the opportunity for the teacher to teach the prefix re- and its application to novel words)?

Having chosen the words, the next step is to decide how to teach them. Research suggests the importance of teaching vocabulary with a focus on meaning, not on rote memory or drill. Specifically, "vocabulary should be taught in the context of subject matter or situations so that word meanings are related to each other and, where possible, to the prior experiences of the reader" (McNeil, 1992, p. 113). Mason, Herman, and Au (1991) describe activities that support this view. They suggest that teachers assess students' prior knowledge, relate what they already know to the new meaning, and place the word in existing networks of concepts. Numerous strategies have been suggested for teaching vocabulary with a focus on background knowledge and conceptual knowledge (for a review, see Baumann and Kameenui, 1991). These include semantic mapping and semantic feature analysis (Johnson and Pearson, 1984).

Based on their review of the research, Alvermann and Phelps (1998) offer guidelines for vocabulary instruction. They suggest that teachers (1) provide numerous exposure to new words and concepts, (2) use a variety of activities for teaching vocabulary, (3) teach for transfer to other subjects and reading situations, and (4) provide opportunities for discussion about words and their meanings.

The Reading/Writing Connection

The interrelatedness of writing and reading has been extensively studied (see, for example, Squire, 1983; Stotsky, 1983; Tierney and Shanahan, 1991). Based on their review of the research, Vacca and Vacca (1996) conclude that (1) good readers are usually good writers and good writers are good readers, (2) skilled writers usually read more than less skilled writers, (3) reading facilitates writing, and (4) students who are skilled readers and writers are more inclined to read and write independently than their less skilled peers. Writing can be utilized before, during, and after

reading to promote comprehension and extend learning. A number of useful strategies are described in the literature (see, for example, McNeil, 1992; Santa and Alvermann, 1997; Vacca and Vacca, 1996). Writing can provide a vehicle with which students can reflect on their learning (Graves, 1983), and is also helpful in eliciting students' responses to literary (Squire, 1983) or expository texts.[22]

Bringing Readers and Texts Together

Reading materials are a critical consideration for teachers, particularly as they are confronted with ever more diverse classrooms. Matching students with texts that will foster their reading development and increase their conceptual and vocabulary knowledge requires that teachers consider both reader and text factors (Zakaluk and Samuels, 1988). The following questions can guide the teacher in determining the match between a student and a text:

- Is the student a fluent reader?
- What is the student's current level of background knowledge about the topic?
- What is the readability level of the text with regard to the vocabulary and sentence difficulty?
- What is the text structure (story structure, compare/contrast, cause/effect)?
- Is the text structure recognizable?
- Will the headings, graphics, questions, introductions, and summaries support student understanding of the text?
- What background knowledge does the text assume?

All these factors will influence the student's comprehension. The teacher must assess the alignment between the student and the text and plan instruction accordingly. Accomplishing this requires careful assessment of students and a good understanding of what has been learned about reading comprehension over the last decades.

[22]Vacca and Vacca (1996) describe different kinds of journals that teachers can use for encouraging students to explore their ideas.

Our Struggling Readers: Children at Risk

The Fourth Grade Slump

The demands of reading increase at fourth grade and many children, unable to keep pace, begin a decline in achievement that continues throughout their schooling. Various explanations have been offered for this decline, including (1) too little emphasis on basic skills; (2) too much emphasis on basic skills; (3) lack of background knowledge, concepts and vocabulary; and (4) a shift in the demands of reading to content that is unfamiliar and abstract and sentence and text structures that are ever more complex (Chall, 1983). No one of these by itself can explain the fourth grade slump. The reading process is too complex, and the needs of children vary too greatly, for there to be any one explanation or easy solution (Allington and Wamsley, 1995).

Some students, for a variety of reasons, have great difficulty with various aspects of word identification, including decoding, blending, and recognizing sight words (Share and Stanovich, 1995). Even if they possess background knowledge, oral vocabulary and conceptual knowledge for understanding various texts, lacking fluency and automaticity, they (Chall 1983; Indrisano and Chall, 1995):

> ... fall behind in acquiring the substantive knowledge that others more advanced gain from reading. Therefore, provisions need to be made for the pupil's continued conceptual and informational development which, in most schools, comes from reading printed materials. If this is not provided while the reader is still learning to read and cannot yet use his reading for learning, the student may lose out on the knowledge, vocabulary, and concepts needed for further education ... (Indrisano and Chall, 1995, p. 68).

In addition to losing out on vocabulary and conceptual knowledge, students with initial difficulty with word identification only may fall behind in cognitive development as well (Stanovitch, 1986).

Other students acquire necessary word identification skills; however, lacking opportunities for learning complex language, concepts, and vocabulary, they too fall into the fourth grade slump and are unable to contend with the conceptual load and text difficulty of content-area reading (Chall and Snow, 1983).

At-Risk Readers: Decades of Research

In the following section, we revisit topics previously explored, viewing them through the lens of children who are at risk for reading failure. This research underscores the particular importance school plays in the lives of these children and further reveals the necessity for school environments that support well-planned, deliberate, and explicit teaching (Delpit, 1988, 1991, 1995).

The results of the Washington Assessment of Student Learning (1997) were consistent with those of other national and state assessments (see, for example, Langer, Applebee, Mullis, and Foertsch, 1990; Mullis and Jenkins, 1990; National Assessment of Educational Progress, 1995)—a substantial number of our students scored below acceptable levels. Data from these assessments reveal that although reading problems are found in all communities, children of poverty, children of color, and those attending urban schools are at the greatest risk of reading failure (National Academy Press, 1998) and "should be targeted for special prevention efforts" (National Academy Press, 1998, p. 27).

Numerous factors that place students at risk for reading problems have been identified (see, for example, Chall, 1990; Chall and Snow, 1982; Snow et al. 1991; National Academy Press, 1998), including cognitive and/or sensory issues, poverty, limited proficiency in English, and differences in dialect and culture. Another factor, as sobering as it is promising, is that these children "attend schools in which achievement is chronically low" (p.131). There are schools that have been able to prevent the reading failure of children who are at risk for reading failure.[23] Characteristics of these schools are described in the "effective schools" research conducted during the 1970s and 1980s (Armor et al. 1976; Brookover and Lezotte, 1979; Dabney and Davis, 1972; Ellis, 1976; Glenn, 1981; Kean et al., 1979; Miller et al., 1986; New York State Office Educational Performance Review, 1974; *Phi Delta Kappa,* 1980; Venezsky and Winfield, 1979; Weber, 1979; Wilder, 1977):

[23]Since the 1960s studies have identified characteristics of schools that experience success with children who are at risk of reading problems. As a group, these studies are referred to as the "effective schools" research.

- Competent teachers.
- There is a person in the school who provides strong leadership, particularly in reading instruction.
- Student progress is frequently assessed and optimal use is made of instructional time.
- There is a focus on academic achievement.
- High expectations are held for students and teachers.
- There is a clearly articulated reading program with a wide variety of reading materials and a combined emphasis on reading connected text and word identification instruction.

The Committee on the Prevention of Reading Difficulties (1998) reports on a long-term study conducted in Louisiana by Stringfield and Teddlier (1988, 1991) and Teddlier and Stringfield (1989, 1993) which identified characteristics of ineffective classrooms:

- Low rates of time engaged in academic work.
- Fewer opportunities for teacher presentation of new materials.
- Low expectations for students.
- Few opportunities for students to receive positive reinforcement.
- Frequent interruptions.
- Higher numbers of discipline problems.
- Classroom environments that are not friendly and supportive.
- Lack of student understanding as to the purpose of required tasks.
- Little long-term planning for instruction.
- Little interactive teaching.
- A preponderance of worksheets and other uninteresting activities.
- Failure to complete work required for each grade by the end of the school year.

A reciprocal relationship exists between schools and classrooms. Schools create learning environments that enhance or diminish the quality of classroom instruction. Likewise, the quality of instruction influences the school environment (Purkey and Smith, 1983; Wertsch, 1991). Many factors related to the low achievement of at-risk students are difficult to alter as well as outside our control[24] (Bloom, 1980). However, school and classroom factors are both within our control and amenable to change. Planning for change involves careful attention to the research in combination with judicious assessment of school and classroom characteristics.

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[24] Research on home/school partnerships points to the benefits of programs that include parents in the school and classroom and encourage home reading. (see, e.g., Dickinson, 1989).

The research on reading instruction for at-risk children has explored several different areas. Taken together, they offer clear directions for practice.

Beginning Reading: Studies of At-Risk Students

Much of the research that has been conducted on at-risk students focuses on beginning reading practices. One group of studies conducted in the 1960s attempted, without clear success, to determine whether a meaning or phonics emphasis in basal reading programs was more effective with urban students (for a review, see Ciardi, 1991). Interesting to teachers is the fact that during this period Chall and Feldmann (1966), pointing out that none of these studies had considered the critical role of teachers, gathered and analyzed data about beginning reading instruction from 12 first grade teachers in New York City. Their research identified four factors that were related to effective beginning reading instruction for their at-risk populations: (1) teacher competence, (2) a thinking approach to learning (teachers emphasized thinking, not rote memory), (3) the use of reading materials at an adequate level of challenge, and (4) specific instruction in phonics.

A second group of early studies of at-risk students compared programs that explicitly taught letter-sound correspondence with those utilizing implicit phonics. Although the findings of these studies are mixed, the majority reveal that first and second graders who received explicit instruction performed better on tests of total reading (Holmes and Rose, 1969; Umbach, 1987), word recognition skills (Dunn and Mueller, 1966; Grant, 1973), vocabulary (Dunn and Mueller, 1966; Grant, 1973; Umbach, 1987), and comprehension (Dunn and Mueller, 1966; Umbach, 1987) than those taught with implicit phonics.

A third group of studies of beginning reading has demonstrated positive short- and long-term outcomes for Distar (Abt, 1977; Engelmann, 1969; Gersten, 1984; Gersten and Carnine, 1982; Meyer, 1984; Meyer, Gersten, and Gutkin, 1983), a program that is "highly structured, describing and even scripting classroom activities in great detail. Its emphasis is squarely and systematically on teaching the code" (Adams, 1990, p. 45). However, an analysis of the Distar research reveals that students in the study schools also had many opportunities for reading and interpreting stories (Meyers, 1983, cited in Adams, 1990). Thus, as Chall points out (1983, as cited in Adams, 1990), "an early opportunity to do meaningful connected reading in addition to learning how to decode is needed to integrate both abilities."

Phonemic Awareness and At-Risk Students

As a group, these early studies described above indicate that students who are at risk for reading failure benefit from some kind of early and explicit instruction in letter-sound correspondences. However, many of these children experience difficulty learning these correspondences because they lack phonemic awareness[25] (see, for example, Juel, Griffith, and Gough, 1986; Swanson, 1987). Research points to the necessity of explicit instruction in phonemic awareness for this population (Ball and Blachman, 1991; Bentim and Leshem, 1993; Blachman, 1987; National Academy Press, 1998; Wallach and Wallach, 1979).

Studies That Focus on Comprehension

A preponderance of the research on young children who are at risk for reading problems has focused on phonics and word recognition. If these were the only studies examined, it might be concluded that providing explicit instruction on word recognition skills alone will prevent reading failure in this population. In many schools, children do devote much of their time to these skills (Allington, 1977, 1980, 1983; Garcia and Pearson, 1990; Hiebert, 1983; Knapp, Adelman, Needels, Zucker, McCollum, Turnbull, Marder, and Shields, 1991). However, the well-recognized existence of the fourth grade slump suggests that these basic skills are necessary, but not sufficient, for meeting the needs of this population.

The advantage of a meaning emphasis for at-risk children is well documented. For example, the benefits of reading to these children have been widely recognized for nearly 50 years (see, for example, Almy, 1949; Chall and Snow, 1982; Durkin, 1982; Feitelson, 1986; Feitelson and Rashif, 1985; Morrow, 1988, 1989; National Academy Press, 1998; Shipman, 1976; Ware and Garber, 1972). Research conducted by Purcell-Gates, McIntyre, and Dahl (1995, as cited in Braunger and Lewis, 1997) indicates that providing learning experiences that focused on concepts of print, story structure, and vocabulary enhanced young readers' "linguistic competence" (p. 23) in these areas. Other research has demonstrated the efficacy of story reading in combination with instruction and modeling of comprehension strategies for nonreaders (Palincsar and Brown, 1989), first graders (Palincsar, Brown, and Campione, 1993), and for older students who, while good at word recognition, struggle with comprehension (Brown and Palincsar, 1984).

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[25]For a complete discussion, see the report on the *Committee for the Prevention of Reading Difficulties* (National Academy Press, 1998).

Morrow (1992) conducted a second grade study that compared the performance in classrooms using a skills-oriented basal reading program with classrooms using an approach that combined the basal with a strong meaning component (literature-based reading and writing activities). She found no significant differences in students' scores on the standardized California Achievement Test of Basic Skills. However, the performance of students in classrooms with the combined approach exceeded that of students in basal only classrooms on tests of (1) language development, (2) oral and written creation of stories, and (3) comprehension. These outcomes suggest that each component made a separate contribution to student achievement and support the efficacy of a combined emphasis on skills and meaning for beginning, at-risk readers.

Preventing the Fourth Grade Slump: Reading Across the Grades

Although achievement data reveal that the performance gains of at risk children begin to decelerate at Grades 3 and 4, most of the research focuses on early reading. A study by Chall and Snow (1982) sought to identify practices for Grades 1 through 4 that can prevent this slump. Their research suggests that instruction should include:

- Opportunities to read and respond to literature.
- A variety of reading materials.
- Use of trade books.
- The use of reading materials (including basals) at an appropriate level of difficulty.[26]
- Visits to the library.
- Explicit instruction in word recognition and comprehension strategies.
- A focus on increasing vocabulary and conceptual knowledge.
- An emphasis on critical thinking.
- Field trips that build background knowledge.
- Creative and other writing.

Success For All: A Model for At-Risk Students

The research presented above focuses solely on reading instruction. However, the quality of instruction is shaped by the school environment. Real and sustaining improvement in the reading achievement of children at risk for reading failure may require extensive restructuring of schools (National Academy Press, 1998). Success for All (SFA), developed by

[26] At student's instructional level—in the zone of proximal development.

Robert Slavin and his associates (1989, 1992, 1994, 1995, 1996), is a school restructuring effort that has been extensively researched (National Academy Press, 1998). SFA seems to combine the findings of diverse bodies of research, including studies of effective schools and effective reading practices for children from preschool through Grade 3. The goal of SFA is "to guarantee every child a level of basic skills sufficient to serve as a basis for success at later grades" (Slavin et al., 1992). SFA incorporates several components:

- A program facilitator who provides leadership in reading.
- Preschool and kindergarten programs that include activities for oral language, phonemic awareness, and story reading.
- Extra support from reading teachers and tutors.
- Small instructional groups.
- A clearly articulated reading program across the grades.
- Frequent assessment and early intervention to prevent failure.
- Comprehensive and research-based reading and writing instruction across the grades.
- Instruction at an adequate level of challenge.
- A focus on oral language development.
- Reading and discussing children's literature.
- Explicit instruction in word recognition and comprehension strategies.
- Homogenous grouping for explicit instruction; heterogeneous grouping for other purposes (buddy reading, discussion, etc).
- Cooperative learning.

Studies of SFA in several low-income, low-achieving schools in Baltimore indicate that students attain higher levels of achievement than those in matched control schools. Evaluations conducted at other schools that have adopted SFA "have not been as strong and consistent" (National Academy Press, 1998, p. 232); however, the outcomes are still promising. SFA is being implemented in a number of schools in Washington State with the hope of substantial gains in student achievement. Successful results will give support to the "transportability" of this research-based program to different school settings.

Sociocultural Issues and At-Risk Students

The literature reflects a growing understanding of (1) the differences between the language and culture of mainstream schools and the students who attend them and (2) the impact that these differences may have on oral and written language development (Au, 1995; Au, Crowell, Jordan, Sloat, Speidel, Klein, and Tharp, 1986; Au and Mason, 1981; Daiute, 1992;

Heath, 1983; Jacob and Jordan, 1987; Tharp, 1989). For example, it appears that features of minority dialect may increase the difficulty of learning the relationships between sounds and symbols (National Academy Press, 1998). Cultural variations in ways of telling stories, asking questions, and participating in discussions may all be potential sources of difficulty for children who learn, organize, and express their knowledge differently from their teachers (Au, 1995; Au and Mason, 1981; Heath, 1983). These children must figure out the discourse forms their teachers use and also learn standard written English (Daiute and Morse, 1994). Some may accomplish this through skill-based practice. Others may need to participate in instruction that is embedded in meaningful contexts (Daiute, 1993; Daiute and Morse, 1994; Delpit, 1986, 1988; Goldenberg, 1995).

Another suggestion has been for teachers to create classrooms that are culturally compatible. For example, Heath (1983) identified differences in the uses of language in three different communities in the Piedmonts and worked with teachers to structure classroom experiences that reflected students' "ways with words" (Heath, 1983). In another example, Au and her associates (1981, 1985, 1986) provided "culturally compatible" instruction for students that included the use of complex and rich "talk stories." In both cases, students also had opportunities for developmentally appropriate and excellent reading instruction, with a combined emphasis on meaning and word recognition. It may be that the combined emphasis creates an optimal context for literacy learning (Chall and Curtis, 1991).

Studies of Teachers' Beliefs and the At-Risk Student

A growing body of research is exploring teachers' beliefs. Many of these studies have documented the positive relationship between teachers' expectations and student achievement (see, for example, Rist, 1970, Rosenthal and Jacobson, 1968; Winfield, 1986). Others have explored the relationship between teachers' beliefs and their practices (Clark and Peterson, 1986). Some of these studies suggest a direct relationship between the two (see, for example, Harste and Burke, 1977), while others conclude that the relationship is mediated by other factors (Feng, 1991) including teachers' conceptions of their students (Duffy and Anderson, 1982).

In a study supporting the latter view, Metheney (1980, as cited in Duffy and Anderson, 1982) found that teachers held a basic skill view of reading; however, their reported instructional emphases varied depending on the

socioeconomic (SES) levels of their students. Instruction for low-SES students stressed word attack and literal comprehension, while instruction for more economically advantaged students focused on inferential comprehension and critical thinking.

Erickson (1989) points to other areas in which teachers' beliefs about social class are manifested. For example, many teachers believe that low-income students have few literacy experiences at home. Research provides a different picture. It appears that while low-income parents, as a group, may be less inclined than middle class parents to read to their children (see, for example, Dickinson, 1989), there are variations between families (Purcell-Gates and L'Allier, 1995). Further, research suggests that these children are exposed to meaningful print as their families go about the business of their daily lives; however, their experiences may be a mismatch for the print experiences of school (Heath, 1983; Taylor and Strickland, 1989).

A second commonly held belief is that parents are not interested in their children's education and are unable and/or unwilling to provide them with the requisites for school success. Again, research refutes this generalization. There is growing evidence that low-income parents are interested in their children's learning and that they do provide them with assistance at home (see, for example, Delgado-Gaitin, 1991; Goldenberg, 1989; Moll and Greenberg, 1990; Trueba, Moll, and Diaz, 1982).

The Relationship Between Teachers' Beliefs and Practices

Stevens (1992) and Stevens and Palincsar (1992) explored the beliefs and practices of teachers in two low-income schools in which student outcomes on the California Achievement Test were found to decline from Grades 1 to 6. Using qualitative and quantitative measures, the researchers found that most teachers believed that their students had limited vocabulary, little background knowledge, and few world experiences. In response to their beliefs, teachers created structured and caring environments for their students. Stevens and Palincsar suggest that for teachers, the circumstances of their students' lives overshadowed academic considerations. Thus, time was taken from teaching and learning to create "contexts of caring." Further, they posit that "the emotions involved in caring may have blinded the teachers to examining and improving their teaching" (Stevens and Palincsar, 1992, p. 211).

In a previously mentioned study, Ciardi (1994) examined the beliefs and practices of teachers of Grades 1 to 4 in two high-achieving, low-income schools. Interestingly, the teachers in both schools also reported that their students had few literacy opportunities at home and that their parents were not interested in their learning. However, these teachers responded to their beliefs by holding themselves accountable for student success and by providing reading instruction that proved to be consistent with the research. Once again, the importance and efficacy of teachers is revealed.

Summary: The research reported above suggests that at-risk students, like their more advantaged counterparts, benefit from a literacy program with a combined emphasis on the four components of reading: word recognition, rate and fluency, vocabulary, and comprehension. The literature also points to the need for instruction that is developmentally appropriate and includes assessment, explicit teaching of skills and strategies, and exposure to a range of literature.

The challenges are complex. We must prevent reading difficulties in young children and provide instruction that supports ongoing reading development at every grade. We must provide intervention at every grade for students who are faltering. And, we must ensure that all our students are able to meet the high standards established in the essential academic learning requirements.

Accomplishing this will depend on a coordinated effort by teachers and school administrators. Competent and knowledgeable teachers need schools that are organized for success and committed to their support.

Practical Considerations: Pulling It All Together

The following guidelines can support schools in planning reading instruction.

1. Balanced instruction may look very different in different schools.

2. All instruction should be based on assessment. Of particular importance is the consideration of expectations for student learning at each grade.

3. Teachers are critical decision makers. Instructional choices must be based on research that matches student populations.

4. Administrators play a critical role in establishing an environment that supports teachers' work.

5. The pedagogical choices that schools make will vary:

- A school may choose a basal program that has a clearly articulated continuum of skills and strategies across the grades. Care will have to be taken to supplement the program, where necessary, to ensure a complete and balanced approach.

- A school may choose to design its own program. This choice requires even closer collaboration among teachers as they work together to plan instruction within and across grades. Special care will be needed to ensure a complete and balanced program that is research-based.

6. The following are suggested for the higher grades:

- Students' reading levels vary within the grades. Instructional decisions must be made depending on the child's current level of developmental, rather than chronological, grade level. However, the goal must be to move students to expected levels of achievement.

- All teachers, regardless of grade level or subject area, are teachers of reading. Instruction should focus on teaching the skills and strategies necessary for reading specific texts.

- Instruction should lead students to facility in analysis, synthesis, and critical thinking.

APPENDIX

Table 1
A Comparision of Literature Reviews on Beginning Reading

Committee	Texas	Northwest Regional Educational Laboratory
K—oral language activities	√	√
K—read aloud to children	√	√
K—reading and book exploration for print concept and basic reading knowledge		√
K—writing for communication, print, and spelling	√	√
K—activities for writing and recognizing letters of the alphabet		have opportunities to notice and use letters
K—activities for phonemic awareness	√	√
K—activities for sight word vocabulary		
K—activities for understanding the alphabetic principle		
1, 2, 3—comprehension instruction by building linguistic and conceptual knowledge		√
1, 2, 3—explicit teaching of comprehension strategies	√	
1—explicit teaching and practice in phonemic awareness	√	
1, 2, 3—instruction in sound-symbol correspondences and spelling patterns	√	learn phonics in the context of real reading and through discussions about books
1—opportunities for sight word learning	√	have opportunities to notice words
1, 2, 3—reading at independent level-fluency		
1, 2, 3—reading at instructional level		
2, 3—repeated reading for fluency		
2, 3—direct vocabulary instruction	√	
K–3—variety of texts		
K–3—engaged and motivated		
K–3—wide reading	practice with decodable texts	read a variety of manageable texts
		learn to use context, syntax, pragmatics, phonology, and orthography strategically
		language experience activities to learn the form and function of print

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Table 2
Developmental Accomplishments of Literacy Acquisition

Birth to 3-Year-Old Accomplishments

- Recognizes specific books by cover.
- Pretends to read books.
- Understands that books are handled in particular ways.
- Enters into a book sharing routine with primary caregivers.
- Vocalization play in crib gives way to enjoyment of rhyming language, nonsense word play, etc.
- Labels objects in books.
- Comments on characters in books.
- Looks at picture in book and realizes it is a symbol for real object.
- Listens to stories.
- Requests/commands adult to read or write.
- May begin attending to specific print such as letters in names.
- Uses increasingly purposive scribbling.
- Occasionally seems to distinguish between drawing and writing.
- Produces some letter-like forms and scribbles with some features on English writing.

Three to 4-Year-Old Accomplishments

- Knows that alphabet letters are a special category of visual graphics that can be individually named.
- Recognizes local environmental print.
- Knows that it is the print that is read in stories.
- Understands that different text forms are used for different functions of print (e.g., list for groceries).
- Pays attention to separable sand repeating sounds in language (e.g., Peter, Peter, Pumpkin Eater, Peter Eater).
- Uses new vocabulary and grammatical constructions in own speech.
- Understands and follows oral directions.
- Is sensitive to some sequences of events in stories.
- Shows an interest in books and reading.
- When being read a story, connects information and events to life experiences.
- Questions and comments demonstrate understanding of literal meaning of story being told.
- Displays reading and writing attempts, calling attention to self: "Look at my story."
- Can identify ten alphabet letters, especially those from own name.
- "Writes" (scribbles) message as part of playful activity.
- May begin to attend to beginning or rhyming sound in salient words.

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Table 3
Kindergarten Accomplishments

- Knows the parts of a book and their functions.
- Begins to track print when listening to a familiar text being read or when rereading own writing.
- "Reads" familiar texts emergently, i.e., not necessarily verbatim from the print alone.
- Recognized and can name all uppercase and lowercase letters.
- Understands that the sequence of letters in a written word represents the sequence of sounds (phonemes) in a spoken word (alphabetic principle).
- Learns many, thought not all, one-to-one letter sound correspondences.
- Recognizes some words by sight, including a few very common ones (a, the, I, my, you, is, are).
- Uses new vocabulary and grammatical constructions in own speech.
- Makes appropriate switches from oral to written language situations.
- Notices when simple sentences fail to make sense.
- Connects information and events in texts to life and life to text experiences.
- Retells, reenacts, or dramatizes stories or parts of stories.
- Listens attentively to books teacher reads to class.
- Can name some book titles and authors.
- Demonstrates familiarity with a number of types or genres of text (e.g., storybooks, expository texts, poems, newspapers, and everyday print such as signs, notices, labels).
- Correctly answers questions about stories read aloud.
- Makes predictions based on illustrations or portions of stories.
- Demonstrates understanding that spoken words consist of a sequence of phonemes.
- Given spoken sets like "dan, dan, den" can identify the first two as same and the third as different.
- Given spoken sets like "dak, pat, zen" can identify the first two as sharing a same sound.
- Given spoken segments, can merge them into a meaningful target work.
- Given a spoken word, can produce another work that rhymes with it.
- Independently writes many uppercase and lowercase letters.
- Uses phonemic awareness and letter knowledge to spell independently (invented or creative spelling).
- Writes (unconventionally) to express own meaning.
- Builds a repertoire of some conventionally spelled words.
- Shows awareness of distinction between "kid writing" and conventional orthography.
- Writes own name (first and last) and the first names of some friends or classmates.
- Can write most letters and some words when they are dictated.

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Table 4
First Grade Accomplishments

- Makes a transition from emergent to "real" reading.
- Reads aloud with accuracy and comprehension any text that is appropriately designed for the first half of Grade 1.
- Accurately decodes orthographically regular, one-syllable words and nonsense words (e.g., sit, zot) using print-sound mappings to sound out unknown words.
- Uses letter-sound correspondence knowledge to sound out unknown words when reading text.
- Recognizes common, irregularly spelled words by sight (have, said, where, two).
- Has reading vocabulary of 300 to 500 words, sight words, and easily sounded out words.
- Monitors own reading and self-corrects when an incorrectly identified word does not fit with cues provided by the letters in the word or the context surrounding the word.
- Reads and comprehends both fiction and nonfiction that is appropriately designed for grade level.
- Shows evidence of expanding language repertory, including increasing appropriate use of standard, more formal language registers.
- Creates own written texts for others to read.
- Notices when difficulties are encountered in understanding text.
- Reads and understands simple written instructions.
- Predicts and justifies what will happen next in stories.
- Discusses prior knowledge of topics in expository texts.
- Discusses how, why, and what-if questions in nonfiction texts.
- Describes new information gained from texts in own words.
- Distinguishes whether simple sentences are incomplete or fail to make sense; notices when simple texts fail to make sense.
- Can answer simple written comprehension questions based on material read.
- Can count the number of syllables in a word.
- Can blend or segment the phonemes of most one-syllable words.
- Spells correctly three- and four-letter short vowel words.
- Composes fairly readable first drafts using appropriate parts of the writing process (some attention to planning, drafting, and rereading for meaning and some self-corrections).
- Uses invented spelling/phonics-based knowledge to spell independently when necessary.
- Shows spelling consciousness or sensitivity to conventional spelling.
- Uses basic punctuation and capitalization.
- Produces a variety of compositions (e.g., stories, descriptions, journal entries), showing appropriate relationships between printed text, illustrations, and other graphics.
- Engages in a variety of literary activities voluntarily (e.g., choosing books and stories to read, writing a note to a friend).

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Table 5
Second Grade Accomplishments

- Reads and comprehends both fiction and nonfiction that is appropriately designed for grade level.
- Accurately decodes orthographically regular, multisyllable words and nonsense words (e.g., capital, Kalamazoo).
- Uses knowledge of print-sound mappings to sound out unknown words.
- Accurately reads many irregularly spelled words and such spelling patterns as diphthongs, special vowel spellings, and common word endings.
- Reads and comprehends both fiction and nonfiction that is appropriately designed for the grade.
- Shows evidence of expanding language repertory including increasing use of more formal language registers.
- Reads voluntarily for interest and own purposes.
- Rereads sentences when meaning is not clear.
- Interprets information from diagrams, charts, and graphs.
- Recalls facts and details of texts.
- Reads nonfiction materials for answers to specific questions or for specific purposes.
- Takes part in creative responses to texts such as dramatizations, oral presentations, fantasy play, etc.
- Discusses similarities in characters and events across stories.
- Connects and compares information across nonfiction selections.
- Poses possible answers to how, why, and what if questions.
- Correctly spells previously studied words and spelling patterns in own writing.
- Represents the complete sound of a word when spelling independently.
- Shows sensitivity to using formal language patterns in place of oral language patterns at appropriate spots in own writing (e.g., decontextualizing sentences, conventions for quoted speech, literary language forms, proper verb forms).
- Makes reasonable judgments about what to include in written products.
- Productively discusses ways to clarify and refine writing of self and others.
- With assistance, adds use of conferencing, revision, and editing processes to clarify and refine own writing to the steps of the expected parts of the writing process.
- Given organizational help, writes informative, well-structured reports.
- Attends to spelling, mechanics, and presentation for final products.
- Produces a variety of types of compositions (e.g., stories, reports, correspondence).

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Table 6
Third Grade Accomplishments

- Reads aloud with fluency and comprehension any text that is appropriately designed for grade level.
- Uses letter-sound correspondence knowledge and structural analysis to decode words.
- Reads and comprehends both fiction and nonfiction that is appropriately designed for grade level.
- Reads longer fictional selections and chapter books independently.
- Takes part in creative responses to texts such as dramatizations, oral presentations, fantasy play, etc.
- Can point to or clearly identify specific words or wordings that are causing comprehension difficulties.
- Summarizes major points from fiction and nonfiction texts.
- In interpreting nonfiction, distinguishes cause and effect, fact and opinion, main idea and supporting details.
- Uses information and reasoning to examine bases of hypotheses and opinions.
- Infers word meaning from taught roots, prefixes, and suffixes.
- Correctly spells previously studied words and spelling patterns in own writing.
- Begins to incorporate literacy words and language patterns in own writing (e.g., elaborates descriptions, uses figurative wording).
- With some guidance, uses all aspects of the writing process in producing own compositions and reports.
- Combines information from multiple sources when writing reports.
- With assistance, suggests and implements editing and revision to clarify and refine own writing.
- Presents and discusses own writing with other students and responds helpfully to other students' compositions.
- Independently reviews work for spelling, mechanics, and presentation.
- Produces a variety of written work (e.g., literature response, reports, "published" books, semantic maps) in a variety of formats, including multimedia forms.

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